REMARKS

By this Amendment, new claims 17-26 are added to more fully claim the disclosed invention. Claims 1-26 are pending. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Claims 1-4 and 9-12 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Applicant amends the rejected claims to clarify the recited subject matter in view of the Applicant's specification teachings at paragraph 0021; however, Applicant submits that the phrase "determined threshold value" is in full compliance with 35 U.S.C. 112. Thus, Applicant traverses that portion of the 112 rejection.

Claims 1-5, 7-8, 9-13 and 15-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Miya et al. (U.S. Patent No. 6,721,367; hereafter "Miya") and Moulsley (U.S. Patent No. 6,470,006) in view of Nakamura et al. (U.S. Patent No. 6,442,218; hereafter "Nakamura"). Claims 6 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Miya, Moulsley and Nakamura in view of Shen et al. (U.S. Patent No. 6,483,884; hereafter "Shen").

Applicant traverses the prior art rejections because a prima facie case of obviousness has not been established because the cited prior art references, analyzed individually or in combination, fail to disclose, teach or suggest all the features recited in the rejected claims.

For example, the cited prior art references fail to disclose, teach or suggest claimed invention including using a first determined weighting coefficient in soft bit decision-making to reduce the significance of at least one symbol at the beginning of a burst the base station receives in a time slot if the difference between the measured signal strengths is considerable to produce an erroneous bit decision. Further, the combined teachings of the cited prior art fail to disclose, teach or suggest the claimed invention including using a second determined weighting coefficient in soft bit decision-making to reduce the significance of at least one symbol at the end of the burst the base station receives in a time slot if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision.

Miya merely discloses a method capable of receiving a signal correctly and preventing instantaneous interruption due to loss of synchronism when the switching of transmission directivities is controlled and when transmission is performed by selecting a path with a widely different propagation delay (column 4 line 65 to column 5 line 4). Miya

teaches that a multi-path propagated signal may be a major factor of deterioration of communication quality if it is sufficiently delayed. To suppress multi-path propagation, Miya teaches transmitting signals to only one of the possible paths. Therefore, a direction of an optimal communication quality is detected and perform trans- missions focusing on that direction (column 1, lines 12-37).

The Office Action referred to column 8, lines 50-54 and column 9, lines 1-8; however, those passages merely teach that, in a receiver, despread signals are output to a timing detection circuit 504. A timing detection circuit detects the moment of times (t0, t1) when the power is large and sends those detected times to a sampling circuit. The sampling circuit then sends received signals for the detected times to an adaptive array antenna reception circuit 506. The adaptive array antenna reception circuit combines the reception signals from antennas in the antenna array so that a desired wave of Signal-to-Interference Ratio (SIR) reaches a maximum value for the reception timings using weighting factors. Based on the weighting factors, reception directivities for the detected times are formed.

However, Miya fails to disclose, teach or suggest that a first weighting coefficient would be determined by comparing the strength of the signal the base station receives in a time slot with the strength of the signal the base station receives in a previous time slot and/or a second weighting coefficient would be determined by comparing the strength of the signal the base station receives in a time slot with the strength of the signal the base station receives in a following time slot, as recited in the rejected claims. Rather, Miya merely discloses means for directing antennas to the direction of a signal path having the best quality.

In fact, contrary to the claimed invention, Miya fails to determine weighting factors by comparing signal strengths of consecutive time slots.

Thus, Miya clearly fails to disclose, teach or suggest using a first determined weighting coefficient in soft bit decision-making to reduce the significance of at least one symbol at the beginning of a burst the base station receives in a time slot if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision. Further, Miya fails to disclose, teach or suggest using a second determined weighting coefficient in soft bit decision-making to reduce the significance of at least one symbol at the end of the burst the base station receives in a time slot if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision.

Moulsley fails to remedy these deficiencies of Miya because Moulsley merely discloses timing control of a transmission time slot. Thus, Moulsley teaches that reception

of a signal during an allocated time slot is accompanied with interference measurement at the beginning or before the beginning of the time slot, and at the end or after the end of the time slot. The interference measurements enable the presence of interfering signals to be detected, and thus enabling the timing of the particular time slot to be adjusted in order to reduce the effects of those interfering signals (column 3, lines 57-65).

The Office Action referred to Moulsley at column 2, lines 31-46. However, that passage merely discloses that measurement around the start of a time slot may be in the preceding time slot, and measurement around the end of the time slot may be in the succeeding time slot or in the part of those time slots. This enables detection of interference immediately before and after the time slot allocated to the channel of interest. Continuous analysis of the interference levels enables determination of when an interferer is approaching the time slot of interest.

However, Moulsley merely presents that reception of a signal, during a time slot, is accompanied with an interference measurement at the beginning or before the beginning of the time slot, and at the end or after the end of the time slot for enabling the timing of a time slot to be adjusted in such a way that the effects of interfering signals will be reduced.

Thus, Moulsley, analyzed individually or in combination with Miya, fails to disclose, teach or suggest, in soft bit decision-making, that the significance of at least one symbol, at the beginning of the burst the base station receives in a time slot, would be reduced by the first determined weighting coefficient, if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision. Further, Moulsley, analyzed individually or in combination with Miya, fails to disclose, teach or suggest that the significance of at least one symbol, at the end of the burst the base station receives in a time slot, would be reduced by means of the second determined weighting coefficient, if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision.

Similarly, Nakamura fails to remedy the deficiencies of Miya and Moulsley because Nakamura merely discloses a demodulator that receives a signal transmitted via phase modulation or multi-value QAM-modulation, and decides transmitted data based on the received signal. The demodulator enhances a transmission-line estimate by using tentatively decided data symbols as pilot symbols (abstract, column 3, lines 20-26). Nakamura teaches that tentative data-decision unit 1-3 eliminates the effect of the transmission line. The tentatively decided data is supplied to data-based transmission-line- estimation unit 1-4. The

data-based transmission-line-estimation unit 1-4 obtains an estimate of the transmission line by using received data symbols based on an assumption that the tentatively decided data is identical to actually transmitted data symbols. Nakamura further teaches that the tentative-data-decision unit 2-3 includes a soft-decision unit 2-3a (see, column 5, line 64 to column 6, line 11 and Figs. 1 and 2).

Thus, even if one of ordinary skill would have combined the teachings of Miya, Moulsley and Nakamura (which Applicant is not admitting), they would not have arrived at the claimed invention including using a first determined weighting coefficient in soft bit decision-making to reduce the significance of at least one symbol at the beginning of a burst the base station receives in a time slot if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision. Further, the combined teachings of Miya, Moulsley and Nakamura would not provide the claimed invention including using a second determined weighting coefficient in soft bit decision-making to reduce the significance of at least one symbol at the end of the burst the base station receives in a time slot if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision.

Similarly, Shen merely teaches a wireless antenna selection and switching system capable of selecting an antenna from a diversity of antennas. The antenna diversity switching system is capable of measuring signal quality. When signals are received from a plurality of antennas, the wireless antenna selection and switching system automatically selects a real-time or a time-delayed signal authentication process.

Thus, when analyzed in combination with any or all of Miya, Moulsley and Nakmura, Shen fails to disclose, teach or suggest using a first determined weighting coefficient in soft bit decision-making to reduce the significance of at least one symbol at the beginning of a burst the base station receives in a time slot if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision. Further, the combined teachings of Miya, Moulsley, Nakamura and Shen would not provide the claimed invention including using a second determined weighting coefficient in soft bit decision-making to reduce the significance of at least one symbol at the end of the burst the base station receives in a time slot if the difference between the measured signal strengths is considerable enough to produce an erroneous bit decision.

In view of the above remarks, it is respectfully submitted that all of the claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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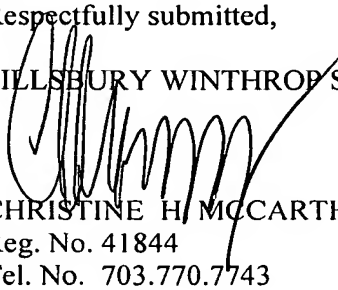

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